

REMARKS/ARGUMENTS

Claims 1-5, 7-8, 10-12, 15, and 49-55 were pending. No claims have been amended. No new claims have been added.

In the Office Action, the Examiner rejected claims 1, 2, 4, and 10, under 35 U.S.C. Section 103(a) as being obvious over Durham (United States Patent Number 5,032,125) in view of Hofmann (United States Patent Number 5,658,287). Applicants respectfully traverse the rejection.

Applicants respectfully submit that independent claim 1 recites “a first intersecting transverse opening, said first transverse opening having an upper surface and a lower surface, and a second intersecting transverse opening, said second transverse opening having an upper surface and a lower surface; a transverse member including a bone engaging portion and a connection shaft, said connection shaft being sized to pass through at least one of said first and said second said transverse openings; and a set screw selectively attached to said nail in said longitudinal opening and movable along said longitudinal axis to rigidly assemble said transverse member to said nail when said connection shaft passes through one of said transverse openings and said set screw is received within said longitudinal opening.”

Applicants respectfully submit that neither Durham nor Hofmann teach or suggest the desirability of the recited claim elements.

Durham teaches a screw 10 including a rod 20 having a passage 28, through which sleeve 40 can be passed. Sleeve 40 is coupled to a compression screw 90 and a lag screw 60. Set screw 80 is received within threaded bore 30, where bottom portion 84 of set screw 80 engages sleeve 40 to secure sleeve 40 within passage 28. (Durham, Figures 1 and 2, and column 3, line 17 - column 5, line 41).

Hofmann teaches pin 1 having thread 10, groove 12, and slot 13. Pin 1 is connected to spring element 2 having holes 7 which align with slot 13, tooth 8 which engages groove 12, slits 15 which provide springiness, and threads 4. Tubular element 3 includes slots 16 and is connected to spring element 2 with threads 5 engaging threads 4. (Hofmann, Figures 1 and 2,

column 2, line 17 - column 3, line 40).

“The element 2 comprises two pairs of flared holes 7 allowing transverse passage of the fixing screws.” (Hofmann, column 2, lines 36-37). “Then after positioning the intramedullary nail in its seat within the bone so that it passes suitably through this latter in correspondence with the fracture rima, he then applies the locking screws distally and proximally through the pairs of holes 14 and 7 respectively.” (Hofmann, column 3, lines 36-40).

In the Office Action, the Examiner stated that “ ... it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Durham, as taught by Hofmann to provide an intramedullary nail having first and second intersecting transverse openings having upper and lower surfaces to allow transverse passage of the fixing screws.”

Applicants respectfully submit that neither Durham nor Hofmann, alone nor in combination, teach or suggest the desirability of, “a set screw selectively attached to said nail in said longitudinal opening and movable along said longitudinal axis to rigidly assemble said transverse member to said nail when said connection shaft passes through one of said transverse openings and said set screw is received within said longitudinal opening,” as recited in Applicants’ claim 1.

The MPEP Section 2141.02 states, “A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. (*W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)).” (emphasis added).

The MPEP Section 2143.01 states, “THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE - If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).” (emphasis added).

Durham teaches a single passage, with a set screw that engages the sleeve 40, which can only be passed through the single passage.

Hofmann does not teach or suggest the desirability of a set screw to engage a transverse

member that has passed through one of the holes 7. Hofmann has not provided for or suggested a passage to receive a set screw which could engage a member passed through either of holes 7.

In fact, Hofmann teaches against a set screw as a set screw would render Hofmann unsatisfactory for its intended purpose. The rigidity of a set screw engaging a transverse member would negate the spring effect of the slits 15, as a set screw would be rigidly connected to tubular element 3 above slits 15, and rigidly connected to holes 7 below the slits 15.

For at least the above reasons, it would not have been obvious to combine Hofmann with Durham.

Applicants respectfully submit that dependent claims 2, 4, and 10 are allowable for at least the same reasons as independent allowable claim 1 from which they depend. Applicants respectfully request that the Examiner withdraw the rejection to claims 1, 2, 4, and 10.

In the Office Action, the Examiner rejected claims 11, 12, 15, and 53-55 under 35 U.S.C. Section 103(a) as being anticipated by Durham (United States Patent Number 5,032,125) in view of Hofmann (United States Patent Number 5,658,287), further in view of Kim (United States Patent Number 5,743,908). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Kim does not remedy the defects of Durham and Hofmann discussed above regarding allowable independent claim 1, from which rejected claims 11, 12, 15, and 53-55 depend. Applicants respectfully submit that rejected claims 11, 12, 15, and 53-55 are allowable for at least the same reasons as independent claim 1, discussed above.

Applicants respectfully request that the Examiner withdraw the rejection to claims 11, 12, 15, and 53-55.

Applicants would like to thank Examiner for indicating the allowability of claims 3, 5, 7, 8, and 49-53.



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It is believed that the claims are now in condition for allowance and a Notice of Allowance is hereby respectfully requested. The undersigned would welcome an interview to discuss any issues which may remain.

Respectfully submitted,

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